

IN THE DISTRICT COURT OF THE VIRGIN ISLANDS  
DIVISION OF ST. CROIX

COMMISSIONER OF THE DEPARTMENT	:	CIVIL ACTION
OF PLANNING AND NATURAL	:	
RESOURCES, ALICIA V. BARNES,	:	
et al.	:	
	:	
v.	:	
	:	
CENTURY ALUMINUM COMPANY,	:	
et al.	:	NO. 05-62

MEMORANDUM

Bartle, J.

August 26, 2013

Plaintiffs, Commissioner of the United States Virgin Islands Department of Planning and Natural Resources, Alicia V. Barnes (the "Commissioner"), and the Government of the Virgin Islands (together with the Commissioner, the "Government"), filed this multi-count environmental lawsuit against entities who at various times owned portions of an industrial area in Kingshill, St. Croix on which both an alumina refining facility and an oil refinery have operated. These defendants were Century Aluminum Company ("Century"), Virgin Islands Alumina Corporation ("VIALCO"), St. Croix Alumina, LLC ("SCA"), Lockheed Martin Corporation ("Lockheed"), Alcoa World Alumina, LLC, ("Alcoa"), St. Croix Renaissance Group, LLLP ("SCRG"), HOVENSA, LLC ("HOVENSA") and Hess Oil Virgin Islands Corporation ("HOVIC").<sup>1</sup>

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1. The Virgin Islands Port Authority and the Virgin Islands  
(continued...)

We have previously approved a settlement between the Government and SCA, Alcoa, and SCRG and granted summary judgment in favor of Century. Accordingly, the remaining defendants are VIALCO, Lockheed, HOVENSA, and HOVIC.

We will now consider the motion of the plaintiffs to exclude certain portions of the expert report, opinions, and testimony of Paul D. Boehm ("Dr. Boehm") under Daubert v. Merrel Dow Pharmaceuticals, 509 U.S. 579 (1993).

I.

The court has a "gatekeeping" function in connection with expert testimony. See Gen. Elec. Co., et al. v. Joiner, 522 U.S. 136, 142 (1997); see also Daubert, 509 U.S. at 589. Rule 702 of the Federal Rules of Evidence provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

As our Court of Appeals has repeatedly noted, Rule 702 embodies three requirements: qualification, reliability, and fit. Pineda v. Ford Motor Co., 520 F.3d 237, 244 (3d Cir. 2008). The

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1. (...continued)

Waste Management Authority are third-party defendants sued by defendants VIALCO and Lockheed and former defendant Century for contribution.

plaintiffs do not challenge the qualifications of Dr. Boehm or the fit of his opinions.

To determine reliability, we focus not on the expert's conclusion but on whether that conclusion is "based on the methods and procedures of science rather than on subjective belief or unsupported speculation." Schneider ex rel. Estate of Schneider v. Fried, 320 F.3d 396, 404 (3d Cir. 2003) (internal quotation marks omitted). Our analysis may include such factors as:

(1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to peer review; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique's operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

Pineda, 520 F.3d at 247-48.

"[T]he test of reliability is flexible" and this court possesses a broad latitude in determining reliability. Kumho Tire Co. v. Carmichael, 526 U.S. 137, 141-42 (1999). To be reliable under Daubert, a party need not prove that his or her expert's opinion is "correct." In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 744 (3d Cir. 1994). Instead:

As long as an expert's scientific testimony rests upon good grounds, based on what is known, it should be tested by the adversary process—competing expert testimony and active cross-examination—rather than excluded from

jurors' scrutiny for fear that they will not grasp its complexities or satisfactorily weigh its inadequacies.

United States v. Mitchell, 365 F.3d 215, 244 (3d Cir. 2004) (quoting Ruiz-Troche v. Pepsi Cola Bottling Co., 161 F.3d 77, 85 (1st Cir. 1998)).

II.

Dr. Boehm is Principal Scientist and Group Vice President of the Environmental Group at Exponent, Inc., a scientific and engineering consulting firm. He received a B.S. in Chemical Engineering from the University of Rochester in 1970 and an M.S. and Ph.D. in Oceanography from the University of Rhode Island in 1973 and 1977, respectively. His field is chemical oceanography and environmental and forensic chemistry. He has published more than 140 papers in peer-reviewed journals and book chapters and has written numerous reports on petroleum, refined fuels, PAH, PCB, oil spills, metals contamination, and marine and terrestrial environmental contamination.

Lockheed retained Dr. Boehm to develop expert opinions regarding:

1) whether the Plaintiffs' investigations conducted in January 2012 on and adjacent to the [alumina refining facility site] and subsequent data analysis on these and other data from the [alumina refining facility site] were performed properly; 2) whether the environmental chemistry and related data from those samples and samples taken by the Exponent team indicated any exposure of marine natural resources to hazardous substances allegedly released at the [alumina refining facility site] by any party who previously operated the Alumina facility; 3) if chemicals were detected, whether they were

from the [alumina refining facility site]; and 4) if chemicals were detected, whether the concentrations of those chemicals would have resulted in any injury to natural resources.

Dr. Boehm developed the following six opinions in response to these issues:

Opinion 1: USVI (Plaintiffs') Experts failed repeatedly to properly address the important regulatory and scientific requirements for adequately evaluating sources of contamination detected in aquatic sediments and for the determination of reference conditions (background/baseline)....

Opinion 2. The determination that Alucroix Channel is injured by chemical contamination from the [alumina refining facility site] by the Plaintiffs' Experts is not supported by available chemistry data....

Opinion 3: Analysis of available information indicates that, for purposes of remediation or restoration of Alucroix Channel, there is no need for the remedial action proposed by Rafferty....

Opinion 4. There is no evidence of injury to the mangrove area to the south of the [alumina refining facility site] supported by available chemistry data. No valid conclusions can be drawn from mangroves sediment data due to lack of a valid reference and failure to properly consider background....

Opinion 5. Sampling methodologies used in January 2012 by Stratus for onsite investigation did not meet scientific or regulatory norms and were not adequate to characterize chemicals exposures to natural resources and toxicity....

Opinion 6: There is no evidence of chemical inputs of contaminants of concern via any pathway related to the Alumina Site in the adjacent offshore environment offshore the Alumina Site....

The plaintiffs first contend that all of Dr. Boehm's opinions based on his Principal Component Analysis ("PCA"),

applied in his second opinion, should be excluded. As noted above, Dr. Boehm has opined that the determination by the plaintiffs' experts that Alucroix Channel is injured by chemical contamination from the alumina refining facility site is not supported by available chemistry data. PCA is a statistical methodology which the plaintiffs concede is "an acceptable statistical methodology if properly applied." However, the plaintiffs maintain that Dr. Boehm improperly applied PCA because he only sampled sediments from the Lower Cooling Pond, ignored the rest of the alumina facility, and combined information from sediments and seep water.

Dr. Boehm had a scientific reason for choosing samples from the Lower Cooling Pond. He noted that sediments from the Lower Cooling Pond flow directly into the Alucroix Channel. Any deficiencies in the choice of location from which Dr. Boehm took his samples may be addressed on cross-examination but do not cause his observations to be unreliable under Daubert. See Mitchell, 365 F.3d at 244-46. Similarly, the plaintiff's contention that it was improper for Dr. Boehm to compare a groundwater sample with a sediment sample may be addressed on cross-examination. This argument goes to the weight of Dr. Boehm's conclusions, not to the reliability of his methodology.

The plaintiffs further argue that Dr. Boehm did not provide enough information about how he implemented PCA for them to replicate it. We are not persuaded. The plaintiffs had Dr. Boehm's data and the statistical program which he used. They

could have asked him further questions about his methodology at his deposition or during discovery, but they chose not to do so. Dr. Boehm's description of his methodology in his report was sufficient under the Federal Rules of Civil Procedure, which require an expert report to provide "a complete statement of all opinions the witness will express and the basis and reasons for them" and "the facts or data considered by the witness in forming them." See Fed. R. Civ. P. 26(a)(2)(B).

The plaintiffs next argue that Dr. Boehm's third opinion should be excluded because it relied on expert opinions of Dr. Ann Morrison ("Dr. Morrison") and Dr. Peter Mesard ("Dr. Mesard"). Dr. Boehm opines in his third opinion that there is no need for the remedial action to restore the Alucroix Channel proposed by the plaintiffs' experts. We have previously addressed the plaintiff's motion to exclude the expert testimony of Dr. Morrison. See Comm'r of the Dep't of Planning & Natural Res. v. Century Aluminum Co., No. 05-62, 2013 U.S. Dist. LEXIS 115249 (D.V.I. Aug. 15, 2013). Although we did exclude part of her testimony, that part is not relevant here. The plaintiffs did not move to dismiss Dr. Mesard's testimony under Daubert.

An expert is permitted to rely upon facts or data that are of a type reasonably relied upon by experts in the field. See Fed. R. Evid. 702 & 703. This includes the opinions of other experts. See In Re TMI Litigation, 193 F.3d 613, 715 (3d Cir. 1999). However, when relying on the opinions of other experts, an expert must "assess the validity of the opinions of the

experts ... relied upon" rather than "unblinking[ly] rel[y] on those experts' opinions." Id. at 716. Dr. Boehm did not "unblinkingly" rely on the opinions of Dr. Morrison and Dr. Mesard. Rather, he cited to them as providing additional support for the opinions he came to on his own accord. He clarified this in his deposition, when he stated, "[i]t's my expert opinion supported by their expert opinions."

For these reasons, we will deny the motion of the plaintiffs to exclude the testimony of Dr. Boehm.